

Remarks

Claims 8, 10 and 12 have been amended to clarify that each process defined in claims 8, 10 and 12 is performed by the apparatus (i.e. information record apparatus, information reproduction apparatus or information record reproduction apparatus).

The term "(vi) button state information to indicate an initial button state of the button" in claims 1, 7, 8, 11 and 12 has been changed to "(vi) button display state information to indicate an initial button display state of the button".

The term "dynamic control information to display dynamically the sub-frame" in claims 1, 5, 7, 8, 11 and 12 has been changed to "dynamic control information to dynamically change a display aspect of the sub-frame".

Claims 8, 10 and 12 were rejected under 35 U.S.C. 101, and have been amended. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 1-5 and 7-15 were rejected as unpatentable over MIZUMURA et al. 2002/0001453 in view of KATO et al. 7,738,776. Reconsideration and withdrawal of the rejection are respectfully requested.

With regard to the comment in the Official Action that is related to the "sub-video control information", it appears that Examiner interpreted the "OSD data" of MIZUMURA et al. as the

"sub-frame" of the present invention. However, the applicant cannot agree with this comment.

Firstly, MIZUMURA et al. disclose the main video data, that is read from the disc 100 and is processed by the main video processor 15, and the sub-video data, that is read from the disc 100 and is processed by the sub video processor 16 (see paragraphs 0030 to 0032). The reference further discloses the OSD (On Screen Display) data that is generated by the OSD data generator 19 (see paragraph 0034), in addition to the above main video data and the sub video data. According to MIZUMURA et al., the OSD data is not read from the disc 100 and is generated independently from the sub-video data. In other words, the OSD data is not one portion of the sub-video data, because the OSD data is generated by the OSD data generator 19 without the sub-video data being referred.

By contrast, the present invention defines the main-video and the sub-picture which are recorded into and are read from the information record medium. The present invention further defines the sub-frame which is read from the information record medium and is one portion of the sub-picture (i.e. whose range is indicated by the cut out range information included in the sub-picture control information). Therefore, the "OSD data" of MIZUMURA et al. is clearly different from the "sub-frame" of the present invention.

In addition, MIZUMURA et al. do not disclose that one portion of the sub-video data is extracted and displayed. Thus, MIZUMURA et al. do not disclose a novel feature of the present invention, namely the "sub-frame which forms one portion of the sub-picture".

If the rejection is repeated, it is respectfully requested that the Examiner indicate the reasons why the OSD data which is NOT read from the disc 100 and is NOT one portion of the sub-video data of MIZUMURA et al. is regarded as the "sub-frame which is read from the information record medium and is one portion of the sub-picture" of the present invention.

Since MIZUMURA et al. do not disclose the sub-frame as claimed, the reference does not disclose, suggest or teach that the "sub-picture control information including various information related to the sub-frame". More specifically, the reference does not disclose, suggest or teach the "(i) sub-frame control information to control displaying sub-frame which forms one portion of the sub-picture, (ii) identification information to indicate the sub-picture information which is a control target by the sub-frame control information, (iii) sub-frame display position information to indicate a display position of the sub-frame, (iv) cut out range information to indicate a range of the sub-picture which forms the sub-frame by cutting-out one portion of the sub-picture, (v) button number information to indicate the number of button which is formed by the sub-frame, (vi) button

display state information to indicate an initial button display state of the button, and (vii) command information to indicate a command which is to be performed in accordance with the button".

Moreover, focusing on "each information included in the sub-picture control information" of the present invention, it is clear that MIZUMURA et al. do not disclose each information because of the follow reasons, in addition to the above reason:

(i) sub-frame control information

The Official Action states that "Mizumura discloses [...]

(i) sub-frame control information to control displaying sub-frame which forms one portion of the sub-picture (paragraph 0044: OSD title generator 19 to generate OSD data indicative of title information and chapter information)".

However, according to MIZUMURA et al., the "OSD data generator 19" is NOT included in the disc 100 BUT included in the DVD reproduction system. Thus, the generated OSD data indicative of title information and chapter information is NOT information which is recorded on the disc 100 or which is read/reproduced from the disc 100. Namely, the generated OSD data indicative of title information and chapter information is merely information which is used only in the DVD reproduction system. In addition, since the generated OSD data indicative of title information and chapter information is NOT information which is recorded on the disc 100 or which is read / reproduced from the disc 100, it

cannot be shared by another DVD reproduction system that loads the same disc 100.

On the other hand, the "sub-frame control information" of the present invention is information which is recorded on the information record medium or which is read/reproduced from the information record medium, it can be shared by another information record apparatus/information reproduction apparatus that loads the same information record medium.

Therefore, it is technically clear that the reference does not disclose, suggest or teach the "(i) sub-frame control information to control displaying sub-frame which forms one portion of the sub-picture" of the present invention.

(ii) identification information

The Official Action states that "Mizumura discloses [...] (ii) identification information to indicate the sub-picture information which is a control target by the sub-frame control information (paragraph 0044: Positions for displaying the OSD character)".

However, according to the reference, the "positions for displaying the OSD character" merely indicate the display position on the display-screen where the OSD character is displayed, and does not indicate the OSD data itself (OSD character itself) which is a control target (e.g. display target). In addition, same as the "sub-frame control information", the "positions for displaying the OSD character" is

NOT information which is recorded on the disc 100 or which is read/reproduced from the disc 100. Therefore, the "positions for displaying the OSD character" cannot be shared by another DVD reproduction system that loads the same disc 100.

Therefore, it is technically clear that MIZUMURA et al. do not disclose, suggest or teach the "(ii) identification information to indicate the sub-picture information which is a control target by the sub-frame control information" of the present invention.

(iv) cut out range information

The Official Action states that "Mizumura discloses [...] (iv) cut out range information to indicate a range of the sub-picture which forms the sub-frame by cutting-out one portion of the sub-picture (paragraph 0044: Positions for displaying the OSD character)".

However, according to the reference, the "positions for displaying the OSD character" merely indicate the display position on the display-screen where the OSD character is displayed, and does not indicate a range of one portion of the data from which the OSD character is cut-out. In addition, same as the "sub-frame control information", the "positions for displaying the OSD character" is NOT information which is recorded on the disc 100 or which is read/reproduced from the disc 100. Therefore, the "positions for displaying the OSD

character" cannot be shared by another DVD reproduction system that loads the same disc 100.

Therefore, it is technically clear that MIZUMURA et al. do not disclose, suggest or teach the "(iv) cut out range information to indicate a range of the sub-picture which forms the sub-frame by cutting-out one portion of the sub-picture" of the present invention.

(v) button number information

The Official Action states that "Mizumura discloses [...] (v) button number information to indicate the number of button which is formed by the sub-frame (Figure 4B)".

However, Figure 4B of this reference merely discloses that a OSD character string "TITLE:01 CHAP:02" is displayed. There is no suggestion or teaching of the "buttons (e.g. button menu which can be selected by the user)" and "the number of the buttons (e.g. N (N is an integer number) pieces of buttons)" in Figure 4B. In addition, same as the "sub-frame control information", the OSD character string "TITLE:01 CHAP:02" in Figure 4B is NOT information which is recorded on the disc 100 or which is read/reproduced from the disc 100. Therefore, the OSD character string "TITLE:01 CHAP:02" in Figure 4B cannot be shared by another DVD reproduction system that loads the same disc 100.

Therefore, it is technically clear that the reference does not disclose, suggest or teach the "(v) button number information

to indicate the number of button which is formed by the sub-frame" of the present invention.

(vi) button display state information

The Official Action states that "Mizumura discloses [...] (vi) button (display) state information to indicate an initial button state of the button (Figure 6A element 32a)".

However, Figure 6A of MIZUMURA et al. merely discloses that a OSD character string "REPEAT:TRACK RANDOM:OFF" is displayed. This merely indicates a condition (i.e. reproduction condition) of the DVD reproduction system. There is no suggestion or teaching of the "the initial display state of button (i.e. the display state (display aspect) of the button when the button is firstly displayed)" in Figure 6A. In addition, same as the "sub-frame control information", the OSD character string "REPEAT:TRACK RANDOM:OFF" in Figure 6A of Mizumura is NOT information which is recorded on the disc 100 or which is read/reproduced from the disc 100. Therefore, the OSD character string "REPEAT:TRACK RANDOM:OFF" in Figure 6A cannot be shared by another DVD reproduction system that loads the same disc 100.

Therefore, it is technically clear that the reference does not disclose, suggest or teach the "(vi) button display state information to indicate an initial button state of the button" of the present invention.

(vii) command information

The Official Action states that "Mizumura discloses [...] (vii) command information to indicate a command which is to be performed in accordance with the button (Figure 6A element 32a)".

However, Figure 6A of the reference merely discloses that a OSD character string "REPEAT:TRACK RANDOM:OFF" is displayed. This merely indicates a condition (i.e. reproduction condition) of the DVD reproduction system. There is no suggestion or teaching of the "buttons (e.g. button menu which can be selected by the user)" and the "information to indicates a command which is to be performed when the button is selected by the user" in Figure 6A. In addition, same as the "sub-frame control information", the OSD character string "REPEAT:TRACK RANDOM:OFF" in Figure 6A is NOT information which is recorded on the disc 100 or which is read/reproduced from the disc 100. Therefore, the OSD character string "REPEAT:TRACK RANDOM:OFF" in Figure 6A cannot be shared by another DVD reproduction system that loads the same disc 100.

Therefore, it is technically clear that the reference does not disclose, suggest or teach the "(vii) command information to indicate a command which is to be performed in accordance with the button" of the present invention.

Since MIZUMUA et al. do not disclose the "sub-frame", the reference does not disclose, suggest or teach another feature of the present invention, namely the "dynamic control information to display dynamically the sub-frame".

Furthermore, the Official Action notes that that "Mizumura discloses [...] dynamic control information to display dynamically the sub-frame (paragraph 0006 and 0008 the sub-video)".

However, paragraphs 0006 and 0008 merely disclose the determination of the display position of the sub-video and the OSD data. There is no suggestion or teaching of the "dynamic change of the display aspect (for example, the display size or the display shape and so on)" in paragraph 0006 and 0008. Therefore, it is technically clear that the reference does not disclose, suggest or teach the "dynamic control information to dynamically change a display aspect of the sub-frame" of the present invention.

KATO et al. do not make for the above-noted differences and, accordingly, the claims avoid the rejection under §103.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future submissions, to charge any deficiency or credit any

overpayment to Deposit Account No. 25-0120 for any additional
fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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